

## CLAIMS

### I Claim:

1. A compact item descriptor derived by classifying the item and assigning values to a list of parameters to describe the characteristics of the item such that two different items with the same compact item descriptor are interchangeable.
2. The compact item descriptor of claim 1 wherein the compact item descriptor is stored in the item description field of the materials planning system and/or the Approved Manufacturer List.
3. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor of an item and a supplier name and the catalog responds with the supplier part number for an interchangeable item.
4. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with a supplier name and the supplier part number of an item and the catalog responds with the compact item descriptor of the item.
5. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with a supplier name and the supplier part number of an item, the catalog responds with the compact item descriptor of the item, and the compact item descriptor is stored in the item master description field of the materials planning system and/or the Approved Manufacturer List for the item.
6. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor of an item and the catalog responds with the supplier name and the supplier part number for an interchangeable item.
7. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor of an item and a supplier name and the catalog responds with the supplier part number for an interchangeable item and the supplier part number is stored into supplier part number field of the materials planning system and/or the Approved Manufacturer List for the item.
8. The compact item descriptor of claim 1 and a catalog wherein the compact item descriptor is translated to a catalog query and the catalog responds with the supplier name and supplier part number for an interchangeable item.

9. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor of an item and a supplier name and the catalog generates the supplier part number for an interchangeable item.
10. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor including a wild card and the catalog responds with the supplier name and supplier part number of an interchangeable item.
11. The compact item descriptor of claim 1 and a catalog wherein the catalog is queried with the compact item descriptor of an item and supplier name and the catalog responds with the core supplier part number for an interchangeable item and a supplier suffix table is queried with the supplier name and a manufacturing process requirement and the supplier suffix table responds with the modification to the core supplier part number such that the resulting supplier part number corresponds to an interchangeable item that meets the manufacturing process requirement.
12. A compact item descriptor describing an item such that two different items with the same compact item descriptor are interchangeable.
13. The compact item descriptor of claim 12 wherein the compact item descriptor is stored in the item description field of a materials system and/or AML.
14. The compact item descriptor of claim 12 and a catalog wherein the catalog is queried with the compact item descriptor and supplier name and the catalog responds with the supplier part number of an interchangeable item.
15. The compact item descriptor of claim 12 and a catalog wherein the catalog is queried with the compact item descriptor and the catalog responds with the supplier name and the supplier part number of an interchangeable item.
16. The compact item descriptor of claim 12 and a catalog wherein the catalog is queried with the compact item descriptor of an item and supplier name and the catalog responds with the core supplier part number for an interchangeable item and a supplier suffix table is queried with the supplier name and a manufacturing process requirement and the supplier suffix table responds with the modification to the core supplier part number such that the resulting supplier part number corresponds to an interchangeable item that meets the manufacturing process requirement.

17. The compact item descriptor of claim 12 and a catalog wherein the catalog is queried with the compact item descriptor that includes a wild card and the catalog responds with the supplier name and supplier part number of an interchangeable item.
18. The compact item descriptor of claim 12 and a catalog wherein the compact item descriptor is translated to a catalog query and the catalog responds with the supplier name and supplier part number for an interchangeable item.
19. A two phase AML validation process where an item is described by a compact item descriptor in the AML such that two different items with the same compact item descriptor are interchangeable and the two phase AML validation process consists of:
  - a. A catalog is queried with the compact item descriptor and supplier name and the catalog responds with the core part number of an interchangeable item that is independent of manufacturing process line requirements;
  - b. A supplier suffix table is queried with the supplier name and the manufacturing process line requirement for a first manufacturing process line and the supplier suffix table responds with the modification to the core part number such that the resulting supplier part number corresponds to an interchangeable item from the supplier conforming to the first manufacturing process line requirements.
20. The two phase AML validation process of claim 19 wherein the supplier suffix table is queried with the supplier name and the manufacturing process line requirement for a second manufacturing process line and the supplier suffix table responds with the modification to the core part number such that the resulting supplier part number corresponds to an interchangeable item from the supplier conforming to the second manufacturing process line requirements